

Krystal's Exam #1A (100%) and Bart (100%)



14:57

Back to My eConcordia

1 - What are the coefficients for the reactants and the products when the equation for the reaction:
 $\text{FeCl}_3 (\text{aq}) + \text{NaOH} (\text{aq}) \rightarrow \text{Fe}(\text{OH})_3 (\text{s}) + \text{NaCl} (\text{aq})$

Is balanced?

- ☐ 1, 1, 1, 1
- ☒ 1, 3, 1, 3
- ☐ 2, 6, 2, 6
- ☐ None of the above

2 - What is the mass in grams of 6.022×10^{23} atoms of sulfur?

- ☐ $6.022 \times 10^{23} \text{ g}$
- ☒ 32.06 g
- ☐ 6.022 g
- ☐ $1.022 \times 10^{23} \text{ g}$

3 - Sulfur trioxide has the formula:

- ☒ SO_3
- ☐ S_2O_6
- ☐ S_3O
- ☐ None of the above

4 - How many liters (expressed in scientific notation and with appropriate number of significant figures) are there in 5.00 μL

- ☒ $5.00 \times 10^{-6} \text{ L}$
- ☐ $50.00 \times 10^{-5} \text{ L}$
- ☐ (500/1000) L
- ☐ $0.500 \times 10^6 \text{ L}$

5 - After performing a calculation, Frank's calculator displayed the result as 5.25916. If the answer can have only three significant figures and must be expressed using scientific notation, it should be reported as:

- ☐ 5.25
- ☐ 5.25×10^0
- ☐ 0.525×10
- ☒ 5.26×10^0

6 - Element with an atomic number of 54 is a:

- ☐ Metal
- ☒ Non-metal
- ☐ Metalloid
- ☐ None of the above

7 - The molar mass of ethanol ($\text{C}_2\text{H}_5\text{OH}$) is given by:

- ☐ 92.12 g/mol
- ☒ 46.06 g/mol
- ☐ 23.03 g/mol
- ☐ 46.06

8 - If 5.0 mL of a liquid has a mass of 4.90 g, its density (mass/volume; expressed in scientific notation with appropriate number of significant figures and correct unit) is:

- ☐ 0.98 g/mL
- ☒ 9.8×10^{-1} g/mL
- ☐ 98.0×10^{-2} g mL⁻¹
- ☐ 9.80×10^{-1} g/mL

9 - In the Periodic Table, the elements Na, Mg, Al, Si, P, S, Cl and Ar belong to the same:

- ☐ Sector
- ☒ Period
- ☐ Group
- ☐ Family

10 - The correct name for H₂O₂ is:

- ☐ Dihydrogen dioxide
- ☒ Hydrogen peroxide
- ☐ Oxygenated water
- ☐ Dioxygen dihydride

11 - If an atom contains two protons and two electrons it is:

- ☐ A cation
- ☐ An anion
- ☐ An ion
- ☒ An atom with no charge

12 - Anions are formed by the:

- ☒ Gain of electrons
- ☐ Loss of electrons
- ☐ Loss of neutrons
- ☐ Gain of protons

13 - An object had a mass of 7.2877 g when weighed on an analytical balance. The uncertain digit in the measurement is:

- ☒ 7
- ☐ 8
- ☐ 2
- ☐ None of the above

14 - The final answer for the calculation, $(5.173 \times 10^5) \times (11.5 \times 10^2)$ contains:

- ☐ 4 significant figures
- ☒ 3 significant figures

- ☐ 1 significant figure
- ☐ 10^6 significant figures

15 - The smallest volume is represented by:

- ☐ 1.0 L
- ☐ 1000 mL
- ☒ $1.0 \times 10^4 \mu\text{L}$
- ☐ $1.0 \times 10^4 \text{ cm}^3$

☒ I am ready to submit my answers

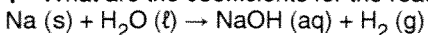
VICTOR'S EXAM #1B (100%)



14:38

Back to My eConcordia

1 - What are the coefficients for the reactants and the products when the equation for the reaction:



is balanced?

- ☐ 1, 1, 1, 1
- ☒ 2, 2, 2, 1
- ☐ 1, 2, 1, 2
- ☐ 4, 4, 4, 2

2 - The mass in grams of one mole of carbon atoms is:

- ☐ 6.02 g
- ☒ 12.011 g
- ☐ 24.04 g
- ☐ 48.12 g

3 - Ammonium sulfate has the formula:

- ☐ NH_4SO_4
- ☐ $(\text{NH}_4)_2(\text{SO}_4)_2$
- ☒ $(\text{NH}_4)_2\text{SO}_4$
- ☐ $\text{NH}_4(\text{SO}_4)_2$

4 - A quantity of 5.44 mg of a substance can be expressed in scientific notation as:

- ☒ $5.44 \times 10^0 \text{ mg}$
- ☐ $5.4 \times 10^0 \text{ mg}$
- ☐ $(544/100) \text{ mg}$
- ☐ $0.54 \times 10 \text{ mg}$

5 - After performing a calculation, Peter obtained the result as 7.03961 mL. If the answer can have only three significant figures and must be expressed using scientific notation, it should be reported as:

- ☒ $7.04 \times 10^0 \text{ mL}$
- ☐ $0.703 \times 10 \text{ mL}$
- ☐ 7.04
- ☐ 70.4/10 mL

6 - Pure gold is classified as:

- ☐ An ion
- ☒ An element
- ☐ A compound
- ☐ A molecule

7 - What is the mass in grams of 6.022×10^{23} atoms of chlorine?

- ☐ 6.022×10^{23} g
- ☒ 35.453 g
- ☐ 6.022 g
- ☐ 1.022×10^{23} g

8 - If the density of a substance is 8.140 g/mL, what is the volume in milliliters of a piece of this substance with a mass of 14.5 g?

- ☐ 0.526 mL
- ☒ 1.899×10^0 mL
- ☐ 3.73 mL
- ☐ 1.26×10^2 mL

9 - In the Periodic Table, the alkali metals are in the same:

- ☒ Group
- ☐ Period
- ☐ Section
- ☐ None of the above

10 - The correct name for $\text{Fe}(\text{OH})_3$ is:

- ☐ Iron hydroxide
- ☐ Iron trihydroxide
- ☒ Iron (III) hydroxide
- ☐ Trihydroxide of iron

11 - An atom has 11 protons, 10 electrons and 12 neutrons. The atom is:

- ☐ Neutral
- ☒ Positively charged
- ☐ Negatively charged
- ☐ None of the above

12 - A neutral atom containing 20 protons and 40 neutrons loses two electrons. The species formed is:

- ☐ An anion
- ☒ An ion having a charge of 2+
- ☐ Neutral
- ☐ An ion having a charge of 2-

13 - Patrick saw 3 cats in his backyard. The number has:

- ☐ 1 significant figure
- ☐ 0 significant figure
- ☒ Infinite number of significant figures
- ☐ 3 significant figures

14 - An object had a mass of 14.1763 g when weighed on an analytical balance. The uncertain digit in the measurement is:

- ☐ 1
- ☒ 8

- ☐ 6
☒ 3

15 - The volume of a room measuring $6.5 \text{ m} \times 6.2 \text{ m} \times 3.0 \text{ m}$ is given by:

- ☐ 120.9 m^3
☐ 120.9
☐ $1.21 \times 10^2 \text{ m}^3$
☒ $1.2 \times 10^2 \text{ m}^3$

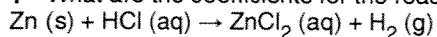
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14:57

Back to My eConcordia

1 - What are the coefficients for the reactants and the products when the equation for the reaction:



is balanced?

- ☐ 1, 1, 1, 1
- ☒ 1, 2, 1, 1
- ☐ 1, 2, 1, 2
- ☐ 2, 4, 2, 2

2 - The mass in grams of one mole of silicon atoms is:

- ☒ 28.08 g
- ☐ 56.16 g
- ☐ 14.04 g
- ☐ 42.12 g

3 - Calcium sulfate has the formula:

- ☒ CaSO_4
- ☐ $\text{Ca}_2(\text{SO}_4)_2$
- ☐ $\text{Ca}(\text{SO}_4)_2$
- ☐ CaS_2O_8

4 - The length of an object is 2.0×10^9 nm. Expressed in meters (in scientific notation with correct number of significant figures) the length is:

- ☐ 2.00×10^0 m
- ☐ 2.0×10^{-18} m
- ☒ 2.0×10^0 m
- ☐ 2 m

5 - After performing a calculation, Susan's calculator displayed the result as 5.23961 mL. If the answer can have only three significant figures and must be expressed using scientific notation, it should be reported as:

- ☒ 5.24×10^0 mL
- ☐ 0.524×10 mL
- ☐ 5.24
- ☐ 52.4/10 mL

6 - Pure copper is:

- ☐ An ion
- ☒ An element
- ☐ A compound
- ☐ A molecule

7 - What is the mass in grams of 6.022×10^{23} atoms of carbon?

- ☐ 6.022×10^{23} g
- ☒ 12.011 g
- ☐ 6.022 g
- ☐ 1.022×10^{23} g

8 - If 5.60 g of a liquid has a volume of 11.2 mL its density is:

- ☐ 2.0 mL/g
- ☐ 5.0×10^{-1}
- ☒ 5.00×10^{-1} g/mL
- ☐ 5.0×10^{-1} g/cm³

9 - In the Periodic Table, the halogens are in the same:

- ☒ Group
- ☐ Period
- ☐ Section
- ☐ None of the above

10 - The correct name for Na_2CO_3 is:

- ☐ Sodium bicarbonate
- ☒ Sodium carbonate
- ☐ Sodium (II) carbonate
- ☐ Disodium monocarbonate

11 - A neutral atom contains 13 protons and has a mass number of 27. The number of neutrons in the atom is:

- ☐ 40
- ☐ 13
- ☐ 27
- ☒ 14

12 - If an atom has 8 protons and 10 electrons it is:

- ☐ A cation
- ☒ An anion
- ☐ Atom with no charge
- ☐ None of the above

13 - Which of the following is the SI base unit for length?

- ☐ Feet
- ☒ Meter
- ☐ Inch
- ☐ None of the above

14 - Object X covered a certain distance in 1.6×10^{-9} s whereas to cover the same distance, object Y took 4.8 ns. Which of following statements is correct:

- ☐ X and Y are moving with the same speed

- ☐ X is moving at half the speed of Y
- ☐ Y is moving faster than X
- ☒ X is moving at three times the speed of Y

15 - An object had a mass of 5.3876 g when weighed on an analytical balance. The uncertain digit in the measurement is:

- ☐ 7
- ☐ 8
- ☐ 5
- ☒ 6

☒ I am ready to submit my answers



09:56

100% - Exam #2A

[Back to My eConcordia](#)

- 1 - The mere presence of a causative agent constitutes a hazard. It is hazardous in all circumstances.
- ☐ True
- ☒ False
- 2 - A diver working at a depth of 8,000 meters may be exposed primarily to which of the following agents?
- ☐ Biological
- ☒ Physical
- ☐ Chemical
- ☐ None of the above
- 3 - The hazard posed by concentrated solutions of potassium permanganate (an oxidizing agent) is classified as:
- ☐ Physical
- ☒ Chemical
- ☐ Biological
- ☐ Ergonomic
- 4 - Which of the following statement is true for acute toxicity?
- ☒ Results from brief exposure to high contaminant levels
- ☐ Much more difficult to study
- ☐ Results from low and repeated exposure over a long period of time
- ☐ May have latency periods
- 5 - In the implementation of WHMIS, suppliers must provide hazard information through:
- ☐ Labels only
- ☐ MSDSs only
- ☒ Labels & MSDSs
- ☐ Telephone calls
- 6 - Chemicals causing changes in DNA are known as:
- ☐ Carcinogens
- ☒ Mutagens
- ☐ Teratogens
- ☐ Irritants
- 7 - Incomplete combustion of oil generates:
- ☐ Dust
- ☐ Fume
- ☒ Smoke
- ☐ Gas

8 - The abbreviation TLV stands for:

- ☐ Time Limit Value
- ☐ Toxic Limit Value
- ☒ Threshold Limit Value
- ☐ To line up for value

9 - The unit used to express exposure to vapors is:

- ☐ m³/L
- ☐ L
- ☒ ppm
- ☐ All of the above

10 - Most common natural routes of entry of chemical agents into the body include:

- ☐ Respiratory tract
- ☐ Digestive tract
- ☐ Skin
- ☒ All of the above

☒ I am ready to submit my answers



09:57

100% - Exam #2B

[Back to My eConcordia](#)

1 - A causative agent is hazardous only in certain circumstances.

- ☒ True
☐ False

2 - A doctor working in an area with the possibility of exposure to X-rays is at risk of being exposed to which of the following agents?

- ☐ Chemical
☒ Physical
☐ Biological
☐ None of the above

3 - The hazard posed by nitric acid (a corrosive and oxidizing material) is classified as:

- ☐ Ergonomic
☐ Biological
☐ Physical
☒ Chemical

4 - Which of the following statements is false:

- ☐ Severe damage to eyes may result from excessive exposure to ultraviolet radiation
☐ Microwaves do not penetrate appreciably below the skin
☐ X-Rays are highly penetrating and damaging to body tissue
☒ Radiation can be detected by human senses

5 - WHMIS was implemented with the goal to:

- ☐ Increase the incidence of illnesses and injuries caused by hazardous materials in the workplace
☐ Catch those who pollute the environment
☐ Collect more taxes
☒ None of the above

6 - Habit forming depressants are classified as:

- ☐ Asphyxiants
☐ Anesthetics
☒ Narcotics
☐ Irritants

7 - Extremely fine particles of zinc oxide formed during welding (a high temperature process) are an example of:

- ☐ Vapor
☒ Fume
☐ Smoke
☐ Mist

8 - A mountain climber at an altitude of 6000 meters may be subjected to pressure conditions described as:

- ☐ Atmospheric
- ☐ Hyperbaric
- ☒ Hypobaric
- ☐ Hyperatmospheric

9 - The abbreviation WHMIS stands for:

- ☐ World Human Migration Institute Stand
- ☒ Workplace Hazardous Materials Information System
- ☐ Workplace Helpful Materials Indexing System
- ☐ None of the above

10 - The unit used to express exposure to particles is:

- ☒ mg/m^3
- ☐ mL
- ☐ mg
- ☐ All of the above

☒ I am ready to submit my answers



09:57

100% - Exam #2C

Back to My eConcordia

1 - Workplace walk-through surveys are performed to:

- ☐ Meet the new workers
- ☐ Play cards with the workers
- ☐ Pass the newspaper around
- ☒ Recognize the potential impact of workplace hazards

2 - A fire fighter trying to put out a fire at a chemical factory is exposed to which of the following agent(s)?

- ☐ Chemical only
- ☐ Physical only
- ☐ Biological only
- ☒ Physical and chemical

3 - Ergonomic stresses arise as a result of optimal adjustment between the worker and the work or workplace.

- ☒ False
- ☐ True

4 - Which of the following statements is false for chronic toxicity?

- ☒ Results from brief exposure to high concentrations of the contaminant
- ☐ Responses generally have latency periods
- ☐ Responses are difficult to observe and relate
- ☐ Results from low and repeated exposure over a long period of time

5 - According to WHMIS, the cost of effective worker training must be paid by:

- ☒ Employer
- ☐ Employee
- ☐ Supplier
- ☐ Regulators

6 - Chemicals causing malformation in newborns are known as:

- ☐ Carcinogens
- ☐ Mutagens
- ☒ Teratogens
- ☐ Irritants

7 - The unit used to express exposure to gases is:

- ☐ mL/m³
- ☒ ppm
- ☐ mL
- ☐ All of the above

8 - Science that deals with the properties and interactions of physical, chemical and biological agents is called:

- ☐ Sociology
- ☒ Toxicology
- ☐ Anthropology
- ☐ All of the above

9 - The abbreviation MSDS stands for:

- ☐ Mechanical Safety Data Sheet
- ☒ Material Safety Data Sheet
- ☐ Make Sure Dollars Are Safe
- ☐ None of the above

10 - The effects of high intensity noise may cause:

- ☐ Feeling of hunger
- ☒ Interference with communication
- ☐ Loss of weight
- ☐ None of the above

☒ I am ready to submit my answers

Back to My eConcordia

1 - A concentration of 51.0 ppb for a gas in air is equal to:

- ☐ 5.10×10^2 ppb
☒ 5.10×10^{-2} ppm
☐ 5.10×10^5 %
☐ 5.10×10^{-3} %

2 - Based upon TLV-TWA values (given in parentheses), which of the following poses the most risk:

- ☒ Compound A (2 ppb)
☐ Compound B (2.5×10^4 ppb)
☐ Compound C (100 ppb)
☐ Compound D (3.0×10^{-4} %)

3 - Capillary action in water makes water in soil available to plants.

- ☒ True
☐ False

4 - The presence of hydrogen bonding in water accounts for its:

- ☒ Exceptionally high boiling point
☐ Taste
☐ Odor
☐ Color

5 - The production of ground level ozone is due to:

- ☒ Certain photochemical reactions
☐ Reaction of nitrogen with sunlight
☐ Reaction of water with oxygen
☐ All of the above

6 - Nitrogen is a minor component of the air we breathe.

- ☐ True
☒ False

7 - The concentration of air contaminants is determined by:

- ☐ Exposing humans to the contaminant
☒ Sampling and analyzing the contaminant
☐ Exposing animals to the contaminant
☐ None of the above

8 - The organization responsible for developing TLVs is abbreviated as:

- ☒ ACGIH
☐ AGCIH
☐ AHGIC
☐ ACGHI

9 - A worker is repeatedly exposed to a concentration of 2.5×10^{-4} % of a substance. If the TLV-TWA for the substance is 5.0 ppm, is it a safe work environment for the worker?

- ☒ Yes
☐ No

10 - Hydrogen bonds in water are:

- ☒ Weaker than covalent bonds
☐ Stronger than covalent bonds
☐ Of the same bond strength
☐ None of the above

[Back to My eConcordia](#)

1 - A concentration of 21.0 ppm for a gas in air is equal to:

- ☐ $2.1 \times 10^{-3} \%$
☐ $2.10 \times 10^{-6} \%$
☐ $2.1 \times 10^5 \%$
☒ $2.10 \times 10^{-3} \%$

2 - Which of the following statements is true based upon the information that the TLVs for two chemicals X and Y are 25 ppm and 45 ppm respectively?

- ☐ X poses less risk than Y
☐ Y poses more risk than X
☐ X and Y pose the similar risk
☒ X poses more risk than Y

3 - Oxides of nitrogen in the atmosphere originate both from natural as well as human-made sources.

- ☒ True
☐ False

4 - The nature of O-H bonds in water is:

- ☐ Ionic
☒ Covalent
☐ Nonionic
☐ Complex

5 - Ozone containing layer of the atmosphere is called:

- ☒ Stratosphere
☐ Sphere
☐ Geosphere
☐ Hydrosphere

6 - Risk characterization integrates the exposure and effects components to estimate the risk.

- ☒ True
☐ False

7 - Air pollutants are responsible for:

- ☒ Poor air quality
☐ Improved air quality
☐ Cooling the air
☐ None of the above

8 - SO_x represents:

- ☐ SO_3 only
☒ Mixture of SO_2 and SO_3
☐ Droplets of H_2SO_4
☐ Particles of sulfate salts

9 - A worker is repeatedly exposed to a concentration of 2.50×10^3 ppb of a substance. If the TLV-TWA for the substance is 25 ppm, is it a safe work environment for the worker?

- ☒ Yes
☐ No

10 - The attractive forces between water molecules are called:

- ☒ Intermolecular
☐ Nonmolecular
☐ Intramolecular
☐ None of the above

☒ I am ready to submit my answers

[Submit](#)

[Back to My eConcordia](#)

1 - If the concentration of SO_2 in air near a pulp and paper mill is 1.5 ppm, what will it be in ppb?

- ☐ 1.50×10^3 ppb
- ☐ 1.5×10^{-3} ppb
- ☒ 1.5×10^3 ppb
- ☐ 1.5×10^{-9} ppb

2 - Based upon TLV-TWA values (given in parentheses), which of the following poses the most risk:

- ☐ Compound A (2.0×10^7 ppb)
- ☐ Compound B (2.5×10^4 ppm)
- ☒ Compound C (100 ppm)
- ☐ Compound D (3.0 %)

3 - Water is a powerful solvent due to its high polarity and hydrogen bonding ability.

- ☒ True
- ☐ False

4 - The electron pair in the O-H bond of water is more strongly attracted by the oxygen atom due to its higher:

- ☒ Electronegativity
- ☐ Molar mass
- ☐ Atomic radius
- ☐ None of the above

5 - Exposure to O_3 may cause:

- ☒ Reduced lung function
- ☐ Enhanced lung function
- ☐ Hair loss
- ☐ Memory loss

6 - Nitrogen is a major component of the air we breathe.

- ☒ True
- ☐ False

7 - The formation of nitric acid in the atmosphere is due to the oxidation of:

- ☒ NO_x
- ☐ SO_x
- ☐ CO
- ☐ All of the above

8 - NO_x represents:

- ☐ NO_2 only
- ☒ Mixture of oxides of nitrogen
- ☐ Droplets of HNO_3
- ☐ Particles of nitrate salts



06:15

Exam #4 A

Back to My eConcordia

1 - Adequate safety precautions must be taken in using certain household cleaners (such as oven cleaners) because these may contain:

- ☐ Water vapor
- ☒ Reactive compounds
- ☐ Liquid droplets
- ☐ Sharp objects

2 - Non-ionic surfactants are:

- ☐ Positively charged
- ☐ Negatively charged
- ☒ Neutral
- ☐ None of the above

3 - In the process of hair coloring, the desired color is obtained by:

- ☐ Oxidation of natural hair pigment
- ☒ Application of an organic synthetic dye
- ☐ Setting the hair in the desired shape
- ☐ Treating the hair with a reducing agent

4 - Fragrances in perfumes are generally experienced in three stages or notes because of the:

- ☒ Volatility of the ingredients
- ☐ Density of the ingredients
- ☐ Price of the ingredients
- ☐ Color of the ingredients

5 - Sunscreen creams are formulated with additional ingredients to:

- ☐ Charge a higher price
- ☒ Absorb certain harmful radiation
- ☐ Make them look colorful
- ☐ None of the above

6 - Skin moisturizers are used to:

- ☐ Color the skin
- ☒ Maintain the moisture content of the skin
- ☐ Dry the skin
- ☐ Protect it against sharp objects

7 - Pigments are added to lipstick to act as:

- ☐ Deodorants
- ☐ Surfactants
- ☐ Taste boosters
- ☒ None of the above

8 - Cosmeceuticals are believed to be more than simple cosmetics.

- ☐ False
- ☒ True

9 - One of the influencing factors in making the chemistry of Personal Care Products an expanding and dynamic field is:

- ☐ Lower price
- ☒ Aging population
- ☐ Better packaging of these products
- ☐ Bulk production

10 - Hardness of water is due to the presence of which ions?

- ☐ Na^+ and K^+
- ☐ F^- and Cl^-
- ☐ Al^{3+} and Br^-



08:05

Exam #4B

Back to My eConcordia

1 - One of the influencing factors in making the chemistry of Personal Care Products an expanding and dynamic field is:

- ☐ Lower price
- ☒ Aging population
- ☐ Better packaging of these products
- ☐ Bulk production

2 - A cationic surfactants is:

- ☒ Positively charged
- ☐ Negatively charged
- ☐ Both positively and negatively charged
- ☐ None of the above

3 - Final step in hair coloring process involves using a:

- ☒ Dye
- ☐ Reducing agent
- ☐ Bleaching agent
- ☐ Conditioning agent

4 - In creating perfumes, the ingredients are blended based upon their:

- ☐ Molecular size only
- ☒ Molecular size and volatility
- ☐ Volatility only
- ☐ Color

5 - Sunscreen products contain chemicals to absorb:

- ☐ Microwaves
- ☐ Vibration
- ☐ Infrared radiation
- ☒ UV Radiation

6 - The effective chemical ingredients in deodorants are:

- ☒ Antibacterial agents and perfumes
- ☐ Water and table salt
- ☐ Pigments
- ☐ Dyes

7 - Skin moisturizers are used to:

- ☐ Color the skin
- ☐ Dry the skin
- ☐ Protect it against sharp objects
- ☒ None of the above

8 - Laundry detergents are formulated by mixing many ingredients because they perform diverse functions.

- ☒ True
- ☐ False

9 - The impact of household cleaners on the environment is minimized because these products are formulated:

- ☒ To work with water and end up in wastewater treatment plants
- ☐ Free of chemicals
- ☐ With natural ingredients only
- ☐ To change into environmentally friendly ingredients immediately after use

10 - Hardness of water is due to the presence of which cations?

- ☒ Ca^{2+} and Mg^{2+}
- ☐ Na^+ and K^+
- ☐ F^- and Cl^-
- ☐ Al^{3+} and Br^-



08:12

Exam #14C

Back to My eConcordia

1 - Surface tension of water must be reduced in order for water to:

- ☒ Wet a surface effectively
- ☐ Freeze easily
- ☐ Become denser
- ☐ Dissolve more oxygen

2 - Surfactants are effective in:

- ☐ Reducing the density of water
- ☐ Increasing the surface tension of water
- ☒ Decreasing the surface tension of water molecules
- ☐ Heating water molecules

3 - Hair conditioners generally contain:

- ☐ Anionic surfactant
- ☐ No surfactant
- ☒ Cationic surfactant
- ☐ Water only

4 - Fragrances for perfumes are created by using:

- ☐ Naturally occurring compounds only
- ☐ Synthetic compounds only
- ☒ Both natural and synthetic compounds
- ☐ None of the above

5 - Sunscreen creams are formulated with additional ingredients to:

- ☐ Charge a higher price
- ☐ Absorb infrared radiation
- ☐ Make them look colorful
- ☒ None of the above

6 - The effective chemical ingredients in deodorants are antibacterial agents to:

- ☐ Culture bacteria
- ☒ Destroy bacteria responsible for converting certain compounds to unpleasant odors
- ☐ Mask the unpleasant odors
- ☐ Trap the unpleasant odors

7 - Pigments are added to lipstick to act as:

- ☐ Deodorants
- ☐ Surfactants
- ☒ Colorants
- ☐ Taste boosters

8 - An anionic surfactant has a negative charge.

- ☒ True
- ☐ False

9 - Adequate safety precautions must be taken in using certain household cleaners (such as oven cleaners) because these may contain:

- ☐ Water vapor
- ☒ Reactive compounds
- ☐ Liquid droplets
- ☐ Sharp objects

10 - The oxidizing agent generally used during curling of hair is:

- ☐ H₂O
- ☒ H₂O₂
- ☐ O₃

1 - Carbon can form single, double and triple bonds with other elements including carbon.

- ☒ True
- ☐ False

2 - The compound with the formula ROR' is:

- ☐ An amine
- ☐ A carboxylic acid
- ☒ An ether
- ☐ None of the above

3 - The compound with the formula C_2H_5OH is an:

- ☒ Alcohol
- ☐ Ether
- ☐ Amine
- ☐ Ester

4 - How many hydrogen atoms are there in a compound with the formula $CH_3(CH_2)_3NH_2$?

- ☐ 4
- ☐ 9
- ☒ 11
- ☐ 8

5 - Cephalosporins are used as:

- ☐ Antiviral drugs
- ☒ Antibiotics
- ☐ Anti-inflammatory drugs
- ☐ None of the above

6 - SSRIs are used as:

- ☐ Fungicide
- ☐ Insecticide
- ☐ Growth hormone
- ☒ None of the above

7 - The three-drug cocktail treatment (HAART) is used to treat:

- ☒ AIDS
- ☐ Pneumonia
- ☐ Cancer
- ☐ Depression

8 - Chemotherapy involves treatment of cancer using:

- ☐ Hypnotherapy
- ☐ Surgery
- ☒ Alkylating agents
- ☐ None of the above

9 - Certain steroids are used as anti-inflammatory drugs because these drugs:

- ☐ Cost a lot of money
- ☐ Are antidepressants
- ☐ Emit radiation
- ☒ None of the above

10 - The number of carbon atoms in a benzene ring is:

- ☒ 6
- ☐ 9
- ☐ 12
- ☐ None of the above



09:55

Exam #6A

[Back to My eConcordia](#)

1 - Weakly acidic nature of rain is due to dissolved:

- ☐ O₂ (g)
- ☐ O₃ (g)
- ☐ N₂ (g)
- ☒ None of the above

2 - Gaseous carbon dioxide is generated when limestone reacts with:

- ☒ Acid
- ☐ Base
- ☐ Water
- ☐ Oxygen

3 - A water sample shows a pH of 3.2. The sample is:

- ☒ Acidic
- ☐ Neutral
- ☐ Colorless
- ☐ Basic

4 - The solubility of lead at a pH of 3.2 is higher than at a pH of 9.7.

- ☐ False
- ☒ True

5 - Solar energy is an example of a:

- ☐ Fossil energy source
- ☒ Non-fossil energy source
- ☐ No energy source
- ☐ Wind energy source

6 - One of the gases responsible for global warming is:

- ☐ CO
- ☐ N₂
- ☒ N₂O
- ☐ O₂

7 - Reduction in carbon dioxide emissions is a suggested strategy to control global warming.

- ☐ False
- ☒ True

(46A)

8 - The depletion of stratospheric ozone is caused by:

- ☐ Natural sources only
- ☐ Human-made sources only
- ☒ Both natural and human-made sources
- ☐ None of the above

9 - The pH value for a solution of sodium hydroxide (a basic solution) should be:

- ☒ Above 7.0
- ☐ Below 7.0
- ☐ Equal to 7.0
- ☐ Equal to 1.5

10 - The production of acid rain is due to the reactions of ozone and nitrogen present in the atmosphere.

- ☐ True
- ☒ False

☒ I am ready to submit my answers



09:52

Exam #6B

[Back to My eConcordia](#)

1 - Weakly acidic nature of rain is due to dissolved:

- ☒ $\text{CO}_2(\text{g})$
- ☐ $\text{O}_2(\text{g})$
- ☐ $\text{O}_3(\text{g})$
- ☐ $\text{N}_2(\text{g})$

2 - Which of the following compound reacts with an acid in the rain to generate carbon dioxide gas?

- ☐ H_2O
- ☒ CaCO_3
- ☐ NaCl
- ☐ NH_3

3 - The pH of a solution is measured to be 10.5. The solution is:

- ☐ Acidic
- ☒ Basic
- ☐ Neutral
- ☐ None of the above

4 - The solubility of aluminum at a pH of 9.5 is higher than at a pH of 4.2.

- ☒ False
- ☐ True

5 - Hydroelectric is an example of a:

- ☐ Fossil energy source
- ☒ Non-fossil energy source
- ☐ No energy source
- ☐ Solar energy source

6 - The gas responsible for global warming is:

- ☐ CO
- ☐ N_2
- ☐ O_2
- ☒ None of the above

7 - Using non-fossil energy sources is a suggested way to control global warming.

- ☒ True
- ☐ False

8 - The agreement to reduce and ultimately ban the manufacture and use of CFCs goes by the name of:

- ☐ Kyoto Protocol
- ☐ EC Free Trade Agreement
- ☐ Geneva Convention
- ☒ Montreal Protocol

9 - The pH value for a solution of ammonium chloride (an acidic solution) should be:

- ☐ Above 7.0
- ☒ Below 7.0
- ☐ Equal to 7.0
- ☐ None of the above

10 - The welders are at a risk of being exposed to ozone in their profession.

- ☒ True
- ☐ False

☒ I am ready to submit my answers



09:56

Exam #6C

Back to My eConcordia

1 - The production of acid rain is due to the reactions of:

- ☐ N_2
- ☒ NO_x and SO_x
- ☐ CO
- ☐ O_3

2 - The reaction of calcium carbonate with sulfuric acid generates gaseous:

- ☐ CO
- ☒ CO_2
- ☐ O_2
- ☐ O_3

3 - The pH of a solution is measured to be 7.0. The solution is:

- ☐ Acidic
- ☐ Basic
- ☒ Neutral
- ☐ None of the above

4 - The solubility of lead at a pH of 9.5 is higher than at a pH of 4.2.

- ☐ True
- ☒ False

5 - Nuclear energy is an example of a:

- ☐ Fossil energy source
- ☐ No energy source
- ☐ Wind energy source
- ☒ None of the above

6 - One of the gases responsible for global warming is:

- ☐ CO
- ☐ N_2
- ☐ O_2
- ☒ CO_2

7 - Energy conservation is one of the suggested ways to control global warming.

- ☐ False
- ☒ True

8 - In the stratosphere, oxygen and ozone interact with solar energy to form a:

- ☒ Dynamic system
- ☐ Static system
- ☐ Solar system
- ☐ No system

9 - The pH value for a solution of sodium chloride (a neutral solution) should be:

- ☐ Above 7.0
- ☐ Below 7.0
- ☒ Equal to 7.0
- ☐ Equal to 11.5

10 - Interaction of high intensity UV light with atmospheric oxygen leads to the formation of ozone.

- ☐ False
- ☒ True

☒ I am ready to submit my answers